WHAT IS CLAIMED IS:

1. A radiocommunication device of a radiocommunication system and connectable to a base station comprising:

a gain controlled amplifier configured to amplify a transmit signal; and

a limiter configured to set a maximum value of the output of the gain controlled amplifier according to an up-link frequency specified by the base station.

2. The radiocommunication device according to claim 1, further comprising a memory configured to store a maximum value for each of frequencies in a preassigned frequency band and a data setter configured to read the maximum value for a frequency specified by the base station from the memory and to supply the read maximum value to the limiter.

3. The radiocommunication device according to claim 1, further comprising:

a memory configured to store a function for the maximum value with each frequency in a preassigned frequency band as a parameter, and

an arithmetic operation circuit configured to determine the maximum value according to the up-link frequency specified by the base station.

4. The radiocommunication device according to claim 1, wherein the maximum value is set low as the frequency is close to the frequency band assigned to

a different radiocommunication system.

5. The radiocommunication device according to claim 1, wherein the maximum value of the limiter is set by the base station.

6. The radiocommunication device according to claim 1, further comprising a transmitter configured to transmit a difference between a setting value of an up-link signal transmission power specified by the base station and the set maximum value to the base station.

7. A transmission power control method for a radiocommunication device of a radiocommunication system and with a gain controlled amplifier comprising:

amplifying a transmission signal by the gain controlled amplifier; and

setting a maximum of an output of the gain controlled amplifier according to an up-link signal frequency specified by a base station such that the closer the up-link signal frequency is to the frequency band assigned to a different radiocommunication system, the lower the maximum is set.

8. A base station for use in a radiocommunication system having a frequency band close to the frequency band assigned to a different radiocommunication system, the base station communicating with a radiocommunication device in which the maximum of its transmission power is set variable with an up-link frequency specified by the base station, the base station

comprising:

a receiver configured to receive a difference between an actual setting and the maximum of the transmission power from the radiocommunication device;

a determination section configured to determine whether the difference is smaller than a threshold; and

a handover section configured to, if the difference is smaller than the threshold, switching the up-link frequency to another up-link frequency that is further from the frequency band of the different radiocommunication system.

9. The base station according to claim 8, wherein, if the current up-link frequency is close to the frequency band assigned to the different radiocommunication system and the difference is smaller than the threshold, said handover section switches the current up-link frequency to an up-link frequency which is further from the frequency band assigned to the different radiocommunication system.

10. The base station according to claim 8, wherein, if the difference is greater than the threshold, the handover section switches the current up-link frequency to an up-link frequency that is closer to the frequency band assigned to the different radiocommunication system.

11. The base station according to claim 8, wherein, if the current up-link frequency is close to

the frequency band assigned to the different radiocommunication system and the difference is smaller than the threshold, the handover section switches the current up-link frequency to an up-link frequency which is further from the frequency band assigned to the different radiocommunication system, and if the current up-link frequency is not close to the frequency band assigned to the different radiocommunication system and the difference is greater than the threshold, the handover section switches the current up-link frequency to an up-link frequency that is closer to the frequency band assigned to the different radiocommunication system.

12. A base station for use in a radiocommunication system having a frequency band close to the frequency band assigned to a different radiocommunication system, the base station communicating with a radiocommunication device in which the maximum of its transmission power is set variable with an up-link frequency specified by the base station, the base station comprising:

a determination section configured to determining whether the transmission power of the radiocommunication device is greater than a threshold; and

a handover section configured to, if the transmission power is greater than the threshold, switching from the up-link frequency to another up-link

frequency that is further from the frequency band of the different radiocommunication system.

13. The base station according to claim 12, wherein, if the current up-link frequency is close to the frequency band assigned to the different radiocommunication system and the transmission power is greater than the threshold, the handover section switches the current up-link frequency to an up-link frequency which is further from the frequency band assigned to the different radiocommunication system.

14. The base station according to claim 12, wherein, if the transmission power is not greater than the threshold, the handover section switches the current up-link frequency to an up-link frequency that is closer to the frequency band assigned to the different radiocommunication system.

15. The base station according to claim 12, wherein, if the current up-link frequency is close to the frequency band assigned to the different radiocommunication system and the transmission power is greater than the threshold, the handover section switches the current up-link frequency to an up-link frequency which is further from the frequency band assigned to the different radiocommunication system, and if the current up-link frequency is not close to the frequency band assigned to the different radiocommunication system and the transmission power is

not greater than the threshold, the handover section switches the current up-link frequency to an up-link frequency that is closer to the frequency band assigned to the different radiocommunication system.